

Attorney Docket RSW920010100US1
Serial No. 10/043,439

Listing of Claims:

1. (Deleted)
2. (Currently amended): The computer implemented method of claim 1 for processing shared data comprising:
receiving a request to perform a task on shared data;
creating a work item message for the task; and
publishing the work item message to a messaging service by posting the work item message to a topic of the messaging service based on a type of the task, wherein the topic is a category by which messages in the messaging service are sorted, wherein the type of the task is one of an edit task for modifying an unlocked node and a locking task for locking an unlocked node.
3. (Previously presented): The computer implemented method of claim 2, wherein posting the work item message to a topic comprises posting the work item message to an edit topic with a filter value set to all nodes, wherein the edit topic is a category identifying non-transaction requests for unlocked nodes.
4. (Currently amended): The computer implemented method of claim 1 for processing shared data comprising:
receiving a request to perform a task on shared data;
creating a work item message for the task; and
publishing the work item message to a messaging service by posting the work item message to a topic of the messaging service based on a type of the task, wherein the topic is a category by which messages in the messaging service are sorted, wherein the type of the task is one of an edit task for modifying a locked node and an unlocking task for unlocking a locked node.
5. (Previously presented): The computer implemented method of claim 4, wherein posting the work item message to a topic comprises posting the work item message to a transaction topic

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with a filter value set to a node originating the request, wherein the transaction topic is a category identifying transaction requests for locked nodes.

6. (Previously presented): A computer implemented method for processing shared data comprising:

receiving a work item message from a messaging service by consuming the work item message from a topic of the messaging service, wherein the topic is a category by which messages in the messaging service are sorted;

processing the work item message based on the topic; and

publishing a result to a result topic of the messaging service, wherein the result topic is a category identifying results of processing the work item message.

7. (Previously presented): The computer implemented method of claim 6, wherein consuming the work item message from a topic comprises consuming the work item message from an edit topic, wherein the edit topic is a category identifying non-transaction requests for unlocked nodes, and wherein the work item message consumed from the edit topic has a filter value set to all nodes.

8. (Previously presented): The computer implemented method of claim 7, further comprising placing the work item message in an edit queue, wherein the edit queue comprises a plurality of work item messages received from the messaging service.

9. (Previously presented): The computer implemented method of claim 8, wherein processing the work item message comprises:

determining whether the work item message was created by a current server cluster node based on the filter value; and

performing a request task corresponding to the work item message if the work item message was created by the current server cluster node.

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10. (Previously presented): The computer implemented method of claim 9, wherein processing the work item message further comprises:
waiting until the work item message is removed from the edit queue if the work item message was not created by the current server cluster node.
11. (Previously presented): The computer implemented method of claim 7, wherein the work item message comprises a locking request for locking an unlocked node.
12. (Previously presented): The computer implemented method of claim 11, wherein processing the work item message comprises locking a portion of shared data.
13. (Previously presented): The computer implemented method of claim 6, wherein consuming the work item message from a topic comprises consuming the work item message from a transaction topic, wherein the transaction topic is a category identifying transaction requests for locked nodes, and wherein the work item message consumed from the transaction topic has a filter value set to an identifier of a locking node.
14. (Previously presented): The computer implemented method of claim 13, wherein processing the work item message comprises:
performing a request task corresponding to the work item message on a clone of at least a portion of shared data.
15. (Previously presented): The computer implemented method of claim 13, wherein the work item message comprises an unlocking request for unlocking a locked node.
16. (Previously presented): The computer implemented method of claim 15, wherein processing the work item message comprises unlocking at least a portion of shared data.
17. (Previously presented): The computer implemented method of claim 16, wherein the

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result comprises a modified portion of the shared data.

18. (Previously presented): A computer implemented method for processing shared data comprising:

receiving a result from a result topic of a messaging service, wherein the result topic is a category identifying results of processing work item messages;

processing the result based on a type of the result; and

updating shared data based on a brand of the result, wherein the brand of the result identifies one of a current node and all nodes.

19. (Previously presented): The computer implemented method of claim 18, wherein processing the result comprises modifying the shared data in persistent storage if the brand of the result is a current node.

20. (Previously presented): The computer implemented method of claim 18, wherein processing the result comprises updating the shared data in memory if the brand of the result is a current node.

21. (Deleted)

22. (Currently amended): The data processing system of claim 21 for processing shared data comprising:

a bus,
a storage device, wherein the storage device contains computer usable code;
a communications unit connected to the bus; and
a processing unit connected to the bus, wherein the processing unit executes the computer
usable code to receive a request to perform a task on shared data;
create a work item message for the task; and
publish the work item message to a messaging service by posting the work item message

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to a topic of the messaging service based on a type of the task, wherein the topic is a category by which messages in the messaging service are sorted, and wherein the type of the task is one of an edit task for modifying an unlocked node and a locking task for locking an unlocked node.

23. (Previously presented): The data processing system of claim 22, wherein the processing unit, in executing the computer usable code to post the work item message to a topic of the messaging service based on a type of the task, executes the computer usable code to post the work item message to an edit topic with a filter value set to all nodes, wherein the edit topic is a category identifying non-transaction requests for unlocked nodes.

24. (Currently amended): The data processing system of claim 21 for processing shared data comprising:

a bus,

a storage device, wherein the storage device contains computer usable code;

a communications unit connected to the bus; and

a processing unit connected to the bus, wherein the processing unit executes the computer usable code to receive a request to perform a task on shared data;

create a work item message for the task; and

publish the work item message to a messaging service by posting the work item message to a topic of the messaging service based on a type of the task, wherein the topic is a category by which messages in the messaging service are sorted, and wherein the type of the task is one of an edit task for modifying a locked node and an unlocking task for unlocking a locked node.

25. (Previously presented): The data processing system of claim 24, wherein the processing unit, in executing the computer usable code to publish the work item message to a messaging service by posting the work item message to a topic of the messaging service based on a type of the task, executes the computer usable code to post the work item message to a transaction topic with a filter value set to a node originating the request, wherein the transaction topic is a category identifying transaction requests for locked nodes.

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26. (Previously presented): A data processing system for processing shared data comprising:
 - a bus,
 - a storage device, wherein the storage device contains computer usable code;
 - a communications unit connected to the bus; and
 - a processing unit connected to the bus, wherein the processing unit executes the computer usable code to receive a work item message from a messaging service by consuming the work item message from a topic of the messaging service, wherein the topic is a category by which messages in the messaging service are sorted;
 - process the work item message based on the topic; and
 - publish a result to a result topic of the messaging service, wherein the result topic is a category identifying results of processing the work item message.
27. (Previously presented): The data processing system of claim 26, wherein the processing unit, in executing the computer usable code to receive a work item message from a messaging service by consuming the work item message from a topic of the messaging service, executes the computer usable code to consume a work item message from an edit topic, wherein the edit topic is a category identifying non-transaction requests for unlocked nodes, and wherein the work item message consumed from the edit topic has a filter value set to all nodes.
28. (Previously presented): The data processing system of claim 27, wherein the processing unit further executes the computer usable code to place the work item message in an edit queue, wherein the edit queue comprises a plurality of work item messages received from the messaging service.
29. (Previously presented): The data processing system of claim 28, wherein the processing unit, in executing the computer usable code to process the work item message based on the topic, executes the computer usable code to determine whether the work item message was created by a current server cluster node based on the filter value; and

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perform a request task corresponding to the work item message if the work item message was created by the current server cluster node.

30. (Previously presented): The data processing system of claim 29, wherein the processing unit, in executing the computer usable code to process the work item message based on the topic, executes the computer usable code to wait until the work item message is removed from the edit queue if the work item message was not created by the current server cluster node.

31. (Previously presented): The data processing system of claim 27, wherein the work item message comprises a locking request for locking an unlocked node.

32. (Previously presented): The data processing system of claim 31, wherein the processing unit, in executing the computer usable code to process the work item message based on the topic, executes the computer usable code to lock a portion of shared data.

33. (Previously presented): The data processing system of claim 26, wherein the processing unit, in executing the computer usable code to receive a work item message from a messaging service by consuming the work item message from a topic of the messaging service, executes the computer usable code to consume a work item message from a transaction topic, wherein the transaction topic is a category identifying transaction requests for locked nodes, and wherein the work item message consumed from the transaction topic has a filter value set to an identifier of a locking node.

34. (Previously presented): The data processing system of claim 33, wherein the processing unit, in executing the computer usable code to process the work item message based on the topic, executes the computer usable code to perform a request task corresponding to the work item message on a clone of at least a portion of shared data.

35. (Previously presented): The data processing system of claim 33, wherein the work item

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message comprises an unlocking request for unlocking a locked node.

36. (Previously presented): The data processing system of claim 35, wherein the processing unit, in executing the computer usable code to process the work item message based on the topic, executes the computer usable code to unlock at least a portion of shared data.

37. (Previously presented): The data processing system of claim 36, wherein the result comprises a modified portion of the shared data.

38. (Previously presented): A data processing system for processing shared data comprising:
a bus,
a storage device, wherein the storage device contains computer usable code;
a communications unit connected to the bus; and
a processing unit connected to the bus, wherein the processing unit executes the computer usable code to receive a result from a result topic of a messaging service, wherein the result topic is a category identifying results of processing work item messages;
process the result based on a type of the result; and
update the shared data based on a brand of the result, wherein the brand of the result identifies one of a current node and all nodes.

39. (Previously presented): The data processing system of claim 38, wherein the processing unit, in executing the computer usable code to process the result based on a type of the result, executes the computer usable code to modify the shared data in persistent storage if the brand of the result is a current node.

40. (Previously presented): The data processing system of claim 38, wherein the processing unit, in executing the computer usable code to process the result based on a type of the result, executes the computer usable code to update the shared data in memory if the brand of the result is a current node.

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41. (Deleted)

42. (Currently amended): A computer program product for processing shared data, the computer program product comprising:

a computer usable storage medium having computer usable program code embodied therein, the computer useable program code comprising:

computer usable program code configured to receive a work item message from a messaging service by consuming the work item message from a topic of the messaging service, wherein the topic is a category by which messages in the messaging service are sorted;

computer usable program code configured to process the work item message based on the topic; and

computer usable program code configured to publish a result to a result topic of the messaging service, wherein the result topic is a category identifying results of processing the work item message.

43. (Deleted)